



DK-US035114

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Norio MAEDA et al.

Serial No.: 09/936,618

Filed: March 5, 2002

For: METHOD AND DEVICE FOR DRYING  
SUBSTRATE

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Patent Art Unit: 3749

Examiner: Kathryn S. O'Malley

INFORMATION DISCLOSURE STATEMENT WITH CERTIFICATION

Assistant Commissioner of Patents  
Washington, DC 20231

Sir:

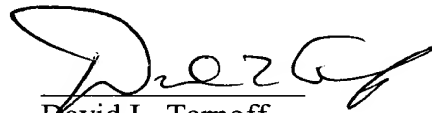
In accordance with MPEP 609 and 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicants bring the attached references to the Examiner's attention and requests that they be considered and made of record in this application. Also attached are a completed PTO-1449 form and a Supplemental European Search Report for a corresponding European application of the present application.

This Information Disclosure Statement is filed together with a Request for Continued Examination. In other words, this Information Disclosure Statement is being filed prior to a first Office Action on the merits, based on the Request for Continued Examination. ***Thus, no fee is believed to be due for this Information Disclosure Statement.*** However, Applicants authorize the Commissioner of Patents and Trademarks to charge payment of the Petition fee Under 37 C.F.R. §1.17(p) ***if required*** and any other fees associated with this communication or credit any overpayment to Deposit Account No. 50-1836.

Japanese Laid-open Examined Patent Publication No. 6-103686 discloses a surface-drying processing method and device to prevent the contamination of a wafer surface and to improve drying efficiency by substituting washing fluid with drying vapor and directly substituting washing fluid on a surface at a speed at which liquid drips do not remain. The

upper part of a container 12 is filled with drying vapor 32, and washing liquid 30 is partially filled as the boundary 34 of gas-liquid-solid is pushed downward through a wafer in a wafer instructing container 18 at an upper side. When saturated drying vapor flows into the container 12 and drying fluid is substituted for washing fluid from the wafer 16 on the boundary 34, drying fluid is mixed with washing fluid, and a clear drying fluid layer is formed on the upper part of washing fluid. The final washing fluid and drying fluid layer flows out of the container 12, and is made to flow into a boiler 14. When the boundary 34 drops at a sufficiently low speed, water/isopropanol boundary removes all water drops and the liquid drips of azeotrope from the wafer 16 as a liquid face drops. Thus, drying can be surely executed, without contaminating the surface of an object.

Respectfully submitted,



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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	1
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**Complete if Known**

Application Number	09/936,618
Filing Date	March 5, 2002
First Named Inventor	Norio MAEDA
Group Art Unit	3749
Examiner Name	Kathryn S. O'Malley
Attorney Docket Number	DK-US035114

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

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